

Remarks

Claims 1-5, 7-14, 17, 19-21, 23-28, 30, and 33-35 stand rejected under 35 U.S.C. 103 as obvious over Manwaring in view of Yabe. Claims 6, 15, 22, 29, and 31 are objected to as being dependent on rejected base claims but are directed to allowable subject matter.

Claim 1 has been amended to require that the display means be mounted remote from the tool and that the difference between the actual and desired positions be indicated with respect to the display reference frame. It is submitted that such an apparatus is neither suggested nor disclosed by Manwaring, Yabe, or the other prior art of record. Manwaring's display is mounted remote from the probe (as noted by the Examiner). Manwaring fails to disclose or suggest the required means for determining an actual position of the display or that the difference between the actual and desired positions be indicated with respect to the display reference frame. Yabe likewise fails, *inter alia*, to disclose or suggest a means for determining the actual position of the display or that the difference be displayed with respect to the display reference frame. Claim 1 has also been amended to correct a minor informality in the preamble.

Claim 3 stands rejected as obvious over Manwaring in view of Yabe. The office action states that it would be obvious to use the endoscope of Yabe with the system of Manwaring to allow information regarding the position, orientation, and trajectory of the endoscope to be displayed on the endoscope itself.

Claim 3 has been amended to specify that the claimed apparatus is for use with an image guided surgery system which includes a display disposed remote from a tool for indicating a position of the surgical tool in relation to an image of the anatomy of the patient. The claimed apparatus includes a surgical tool, a means adapted for operative communication with the image guided surgery system and mounted to the tool for indicating to a human the difference between the actual and desired positions of the tool, and means for determining an actual position of the means for indicating.

In contrast, Manwaring's display screen 40 includes three elements. The first is a tomograph slice 42 with information 82, 54, 52 related to the position of a tool superimposed

thereon. The second element is a live video image 44 from an endoscope, and the third is a graphic object 46 displayed simultaneously therewith. As acknowledged by the office action, Manwaring's display is not mounted to the probe. Yabe displays only an endoscopic image with identifying information superimposed thereon.

It is respectfully submitted that the prior art of record fails to disclose or suggest that an indication of the position of the surgical tool be displayed on a display mounted remote from the surgical tool while a means mounted to the tool indicates a difference between the actual and desired positions of the tool.

Claim 4 has been amended to depend from claim 3 instead of claim 1. The "means for indicating" amendment ensures an appropriate antecedent basis.

Claim 6 has been placed in independent form. It has also been amended to provide a more appropriate antecedent basis. The indication that this claim is directed to allowable subject matter is appreciated.

Claim 9 depends ultimately from claim 1. In addition to the requirements of claim 1, it requires that the at least one indicator be mounted to the patient support. This is contrary to the present rejection, which requires that indicator be mounted on the endoscope.

Claim 15 has been placed in independent form. The indication that this claim is directed to allowable subject matter is appreciated.

Claim 17 has been amended in a manner analogous to claim 3. As more fully set forth above, it is submitted that claim 17 likewise distinguishes patentably and non-obviously over the prior art of record.

Claim 22 has been rewritten in independent form. The indication that this claim is directed to allowable subject matter is appreciated.

Claim 24 has been amended to explicitly require a display disposed remote from a surgical tool for indicating a position of the surgical tool in relation to an image of the anatomy

of the patient. As more fully set forth above with respect to claim 3, it is submitted that claim 24 likewise distinguishes patentably and non-obviously over the prior art of record.

Claim 25, 27, and 30 have been amended in a manner analogous to claims 3 and 24. As more fully set forth above, it is submitted that these claims likewise distinguish patentably and non-obviously over the prior art of record.


Claim 26 has been amended to require that the position display be disposed remote from the tool. As more fully set forth above with respect to claim 1, it is submitted that claim 26 distinguishes patentably and non-obviously over the prior art of record.

The indication that claim 29 is directed to allowable subject matter is appreciated.

Conclusion

In view of the foregoing, it is respectfully submitted that claims 1-15, 17, 19-31, and 33-35 distinguish patentably and unobviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,


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